GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

STARRED QUESTION NO:59
ANSWERED ON:02.12.2015
Coastal Nuclear Power Plants
Lokhande Shri Sadashiv Kisan

Will the Minister of ATOMIC ENERGY be pleased to state:

(a) whether the Government has drawn any guidelines for setting up nuclear powerplants in the coastal areas of the country and if so, the details thereof;

(b)whether the Government proposes to set up more nuclear power plants in the coastal areas of the country and if so, the details thereof, coastal area-wise;

(c)whether nuclear power plants situated on coastal areas are able to withstand natural calamities like Tsunami, Earthquake, etc. and if so, the details thereof and if not, the reasons therefor along with the measures taken in this regard; and

(d)the quantum of power generated/ likely to be generated by each of the said power plants?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (DR.JITENDRA SINGH):

(a) Yes Sir; The setting up of nuclear power plants in the country, including at the coastal locations, is carried out in accordance with the criteria laid down in the Code of Atomic Energy Regulatory Board (AERB) titled 'Site Evaluation of Nuclear Facilities'.

(b)Yes Sir; presently, seven power plants are in operation in coastal areas and four more under various stages of implementation as detailed below:

Coastal Location Nuclear Power Plant Capacity (MW) Status
Tarapur, Maharashtra Tarapur Atomic Power Station - 1&2 2x160 In operation
Tarapur Atomic Power Station - 3&4 2x540
Kalpakkam, Tamil Nadu Madras Atomic Power Station - 1&2 2x220
Kudankulam, Tamil Nadu Kudankulam Nuclear Power Plant Unit -1 1x1000
Kudankulam Nuclear Power Plant Unit − 2 1x1000 Under
Commissioning
Kalpakkam,Tamil Nadu Prototype Fast Breeder Reactor(PFBR) 1x500
Kudankulam,Tamil Nadu Kudankulam NuclearPower Plant Units-3&4 2x1000 Financial
sanction/administrative
approval received

The Government has also accorded 'in-principle' approval for sites to setup 1000 MW or higher capacity Light Water Reactors at the coastal locations in a phased manner, starting with setting up a pair of reactors in the first phase.

The details of these reactors planned to be set up are as follows:

Coastal Location Nuclear Power Plant Capacity (MW)
Jaitapur, Maharashtra Jaitapur Nuclear Power Project (JNPP-1&2) 2 x 1650
Kovvada, Andhra Pradesh Kovvada,1 & 2 2 x 1500
Chhaya Mithi Virdi, Gujarat Chhaya Mithi Virdi, 1&2 2 x 1100
Haripur, West Bengal Site is approved for 6 x 1000* MW.
Details to be
worked out.
Kalpakkam, Tamil Nadu Fast Breeder Reactor(FBR − 1&2) $ 2 x 500

* Nominal Capacity $: Pre-project activities are being taken up.

(c) Yes Sir; The technical assessment and provisions to withstand the extreme natural events like Earthquake, Tsunami etc. are considered at every stage of nuclear power plant starting from siting, design, construction, commissioning and operation.
Design features and provisions are employed to withstand extreme natural events like earthquake & tsunami. These features include earthquake resistant design, provision of seismic switches to shutdown the reactor on sensing earthquake, location of safety buildings

above maximum flood level, shore protection measures, etc.

Further to this, all the safety related equipment are located at still higher elevations to prevent submergence of these from the possible flooding.

(d) The power generation capacity of the nuclear power plants currently located and planned to be setup at coastal locations is given as under:

Coastal Location Nuclear Power Plant Capacity (MW) Status

Tarapur, Maharashtra Tarapur Atomic Power Station - 1&2 2x160 In Operation
Tarapur Atomic Power Station - 3&4 2x540
Kalpakkam, Tamil Nadu Madras Atomic Power Station - 1&2 2x220
Prototype Fast Breeder Reactor (PFBR) 1X500 Under Commissioning
Kudankulam,
Tamil Nadu Kudankulam Nuclear Power Plant Unit -1 1x1000 In Operation
Kudankulam Nuclear Power Plant Unit - 2 1x1000 Under
Commissioning
Kudankulam Nuclear Power Plant Units - 3&4 2x1000 Project
Approved
Kudankulam Nuclear Power Plant Units - 5&6 2x1000

Jaitapur, Maharashtra Jaitapur Nuclear Power Plant Units-1&2 2x1650
Chhaya Mithi Virdi, Gujarat Mithi Virdi Units - 1&2 2 x1100 Reactors planned in
Kovvada, Andhra Pradesh Kovvada Units -1&2 2 x1500 near to medium term
Kalpakkam, Tamil Nadu Fast Breeder Reactor - 1&2 2 x500
Haripur,
West Bengal Haripur Units -1&2 Site is approved for 6 x 1000* MW. Details being worked out.

* Nominal Capacity.
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